Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Cancel claims 1-13.

14. (currently amended)   A method for effecting a transfer of information to a proxy server, said proxy server having a cache storing a plurality of resources, the method performed at a resource server, the method comprising the steps of:

receiving a request from a proxy server, wherein the request seeks information about a particular resource;

retrieving information regarding said particular resource in response to said request;

examining a volume of resource information with which said particular resource is associated, said volume also including information relating to resources other than said particular resource;

compiling information from a subset of said volume of resource information; and

generating a response to the received request using the retrieved information and the compiled information.

15. (currently amended)   The method of claim 14 comprising the further steps step of,

receiving, receive a proxy filter with said request from said proxy server, a proxy filter, and

referring to said proxy filter to generate the compiled information wherein said step of compiling information comprises compiling information based, at least in part, on said proxy filiter.

16. (previously presented)   The method of claim 14 wherein the retrieved information includes a copy of the particular resource.

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17.(currently amended)   The method of claim 14 wherein the retrieved information includes an indication of when the requested particular resource was last modified.

18.(previously presented)   The method of claim 14 wherein the compiled information includes an identifier for said at least one further resource.

19.(previously presented)   The method of claim 18 wherein said compiled information includes attribute information regarding said at least one further resource.

20.(currently amended)   A method for facilitating proxy server cache updates, the method performed at a resource server, the method comprising the steps of

receiving a request for information regarding a first resource;

receiving a proxy filter associated with a proxy server associated with the received request;

retrieving information responsive to said request;

analyzing a volume of resources related to said first resource using said received proxy filter so as to identify at least a second resource of potential interest to said proxy server;

identifying attribute information regarding said at least a second resource;

generating a response to said request based on the retrieved information and the identified attribute information; and

transmitting the response to the proxy server associated with the received request.

21.(previously presented)   The method of claim 20 wherein said proxy filter includes a selection parameter for choosing one or more resources from a volume of resources related to said first resource.

22.(previously presented)   The method of claim 21 wherein said selection parameter is selected from a group of resource attributes that includes, resource size, resource content type, a resource change rate and a resource request frequency.

23.(currently amended)   The method of claim 20 wherein said request for information includes an identifier for said first resource and ~~the proxy server's~~ information available at said proxy server regarding a last modification time of said first resource.

24. (currently amended)   The method of claim 23 wherein said step of retrieving information includes retrieving a last modification time for said first resource ~~from a server associated with said first resource~~.

25. (currently amended)   The method of claim 24 wherein said step of retrieving information includes the further substeps of:

comparing the retrieved last modification time and said ~~proxy server's~~ information regarding a last modification time included in said request; and

retrieving another copy of said first resource when said step of comparing indicates that ~~the~~ said modification time for said first resource at said resource server ~~associated with said first resource~~ differs from ~~the~~ said last modification time for said first resource ~~at said proxy server~~ included in said request.

26. (previously presented)   The method of claim 25 wherein said step of generating a response includes the step of combining said another copy of said first resource with the identified attribute information.

27. (previously presented)   The method of claim 26 wherein said proxy filter includes a selection parameter for choosing one or more resources from a volume of resources related to said first resource.

28. (previously presented)   The method of claim 27 wherein said selection parameter is selected from a group of resources attributes that includes, resource size, resource content type, a resource change rate and a resource request frequency.

29. (currently amended)   A method for creating a volume of resources from a plurality of resources available to a <u>resource</u> server, <u>the method performed at said resource server,</u> the method comprising the steps of:

detecting when a first resource is requested of the <u>resource</u> server;

identifying a second resource that is requested from said <u>resource</u> server within a time period following the request for the first resource;

determining a probability that said resource will also be requested if said first resource is requested; and

if ~~the determined~~ <u>said</u> probability satisfies a minimum threshold then associating said first resource and said second resource in a volume.

30. (previously presented)   The method of claim 28 wherein the volume includes information regarding associated resources.

31. (previously presented)   The method of claim 30 wherein said information includes an identifier for each resource.

32. (currently amended)   The method of claim ~~30~~ <u>31</u> wherein said information includes ~~an identifier for each resource and~~ a size of each resource.

33. (previously presented)   The method of claim 30 wherein said information includes an identifier for each resource and information about when each resource was last modified.

34. (currently amended)   A method for creating a volume of resources from a plurality of resources available to a server, <u>each of said plurality of resources having an associated directory prefix, the method performed at said server,</u> the method comprising the steps of:

analyzing the directory prefix of each of a said plurality of resources ~~associated with said server~~;

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dividing the resources into a plurality of subsets based on matching directory prefixes of the resources to a predetermined prefix level;

associating resources in <u>at least</u> one of said plurality of subsets in a <u>respective</u> volume, wherein <u>each</u> said volume includes an identifier for each resource <u>associated with the respective volume</u> .

35. (currently amended)   The method of claim 34 wherein <u>each</u> said volume further includes information

about the size of each resource <u>included therein</u>.

36. (currently amended)   The method of claim 34 wherein <u>each</u> said volume further includes information about when each resource <u>included therein</u> was last modified.

37. (currently amended)   A method for providing a proxy server with supplemental information in response to a request related to a resource <u>available to a server, the method performed at said server</u> the method comprising the steps of

creating a volume center, wherein a plurality of volumes are stored, each volume including information about related resources;

~~detecting, at said volume center, a resource~~ <u>receiving a</u> request ~~to said resource server that stores a resource referred~~ <u>from said proxy server referring</u> to ~~in~~ one of the volumes at said volume center; and

~~forwarding~~ <u>sending</u> volume information related to said ~~resource~~ request to the requesting proxy server.

38. (currently amended)   The method of claim 37 wherein <u>said</u> volume information includes identifiers for a plurality of related resources and information regarding when each <u>said</u> related resource was last modified.

39. (currently amended)   The method of claim 38 comprising the further steps of:

~~after detecting the resource request, forwarding~~ receiving a request to ~~get~~ send the resource to the ~~resource's~~ requesting server if the information in the volume information about when the requested resource was last modified does not satisfy a predetermined criterion;

piggybacking the volume information to a resource returned in response to the request to ~~get~~ send the resource; and

forwarding the resource and piggybacked volume information to the proxy server that issued the request related to the resource.

40. (currently amended)   The method of claim 37 comprising the further steps of,

~~detecting~~ receiving a proxy filter sent by the proxy server along with the resource request; and

selecting a subset of information from a volume related to the resource associated with the resource request, wherein said step of forwarding forwards the selected subset.

Please cancel claims 41-42

43. (currently amended)   A method for improving cache operations of a proxy server, the method performed at said proxy server, the method comprising the steps of:

receiving a response to a request related to a resource, wherein said response includes information about resources related to the resource associated with the request;

analyzing said information to determine if said information indicates that any resources stored in said cache have been modified; and

if said step of analyzing indicates that at least one ~~a~~ resource has been modified, updating ~~the~~ at least one of said modified ~~resource~~ resources.

44. (currently amended)   The method of claim 43 wherein said step of updating includes requesting the modified version of ~~the~~ at least one of said modified resources~~resource~~.

45. (previously presented)   The method of claim 43 wherein said step of updating includes initiating a request for differences between the version of the resource stored in the cache and the modified version of the resource.

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46. (currently amended)   A method for improving cache operations of a proxy server, the method performed at a proxy server having a cache, the method comprising the steps of:

receiving a response to a request related to a resource, wherein said response includes information about resources related to the resource associated with the request;

analyzing said information to determine if said information indicates that ~~whether~~ any resource referred to in said information is not stored at said cache; and

in response to the step of analyzing, fetching a resource not stored ~~present~~ in said cache.

47. (previously presented)   The method of claim 29, wherein the probability is determined only if the first resource and the second resource each have a same directory prefix.